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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,437	02/22/2002	Randal Chilton Burns	ARC920010022US1	6308

7590 05/28/2004

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EXAMINER

LE, DEBBIE M

ART UNIT PAPER NUMBER 3

2177

DATE MAILED: 05/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/082,437

Applicant(s)

BURNS ET AL.

Examiner

DEBBIE M LE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 February 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Information Disclosure Statement***

The information disclosure statement (IDS) submitted on 2/22/02 is in compliance with the provisions of 37 CFR 1.97 and has been considered by the examiner.

### ***Specification***

The abstract of the disclosure is objected because it is a typographical error:

In line 5, "The system the logs deletions" should read "The system logs deletions".

Correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

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the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldstein et al (USP 6,665,815 B1) in view of Beeler, Jr. (USP 5,974,563).

As per claim 1, Goldstein discloses a method for restoring a file system from one or more incremental backups in the presence of deletion, without restoring a deleted file, comprising the steps of:

updating metadata associated with the deleted file (mapping metadata, col. 4, lines 41-51); and

using the deletion log and the metadata, re-deleting the deleted file that has been previously backed-up, upon a restore operation to an incremental backup, to allow accurate restore by removing the deleted file without comparing snap-shot images (fig. 10, precedent backup, col. 6-7).

Goldstein does not explicitly teach deleting a file and logging a file deletion in a deletion log. However, Beeler teaches deleting a file and logging a file deletion in a deletion log (fig. 17, transaction log, maintain copies of deleted files on the target computer, col. 6, lines 55-58, col. 14, lines 23-25). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the

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teachings of the cited references to provide the step when a file is deleted, logs the deleted file in a deletion logs because it allows a user to restore the deletion files to a specific location on the source computer (col. 6, lines 60-63).

As per claim 2, Goldstein teaches the step of checking if the deleted file has been backed-up in a previous incremental backup (col. 5, lines 25-60).

As per claim 3, Goldstein teaches wherein the step of deleting the file includes moving the file designated for deletion from a file server to an allocated memory in a backup system (col. 6, lines 61-65).

As per claim 4, Goldstein teaches wherein, in the restore operation, if the deleted file has been backed-up and a backup file has been created, annotating the metadata to reflect the deletion of the file (col. 4, lines 41-64).

As per claim 5, Beeler teaches wherein the step of logging the file deletion in the deletion log includes logging a file name and annotated metadata (col. 6, line 59).

As per claim 6, Goldstein teaches wherein if the deleted file has not been backed-up, proceeding with the restore operation without creating a deletion log for the deleted file (fig. 8-9).

As per claim 7, Beeler teaches the step of checking the deletion log for an entry indicative of a deleted file (col. 13, lines 35-61).

As per claim 8, Beeler teaches wherein if the deletion log contains at least one entry, backing up the deletion log (col. 13, lines 62-67, col. 14, lines 1-5).

As per claim 9, Beeler teaches subsequent to the step of backing up the deletion log, clearing the deletion log in preparation for future file deletion entries (col. 13, lines 50-53).

As per claim 10, Beeler teaches wherein if the deletion log does not contain a deletion entry, implementing a client application without backing up the deletion log (col. 14, lines 23-39).

Claims 11 and 19 are rejected by the same rationale as state in independent claim 1 arguments.

Claims 12-18, 20 have similar limitations as state dependent claims 2-9; therefore, they are rejected by the same subject matter.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DEBBIE M LE whose telephone number is 703-308-6409. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN BREENE can be reached on 703-305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DEBBIE M LE  
Examiner  
Art Unit 2177

Debbie Le

May 24, 2004.



GRETA ROBINSON  
PRIMARY EXAMINER